II. All intangible assets reflected in a cable operator's records in accordance with GAAP should be included in any valuation of the "rate base" for the purpose of initializing regulated rates.

A. Background

The Notice of Proposed Rulemaking (NPRM) discusses a concept it labels "excess acquisition costs."[1] This discussion appears to reflect a belief that acquisition prices paid for cable systems prior to reregulation, and presumably the related intangible asset entries for the acquiring cable company, solely reflect the expectation of monopoly profits. The NPRM tentatively concludes that "portions of goodwill, customer lists, franchise rights, and other intangible assets" related to "excess acquisition costs" should be excluded from rate base.[2]

The Medium-Sized Operators Group believes that their intangible assets reflect legitimate costs of business development. The Group strongly objects to the FCC presumption that one hundred percent of acquisition prices in excess of the book value of tangible assets must relate to expected monopoly profits. The Group urges the FCC to treat tangible assets and intangible assets identically for the purpose of initializing regulated rates.

The Group asked Ernst & Young to determine:

1. whether intangible assets are commonly observed in non-cable markets for reasons unrelated to market power; and

2. whether companies making acquisitions commonly pay premiums over the book value of tangible assets for reasons unrelated to market power.

To help answer these questions, we analyzed balance sheet data from Compustat and acquisition price data from Securities Data Corporation. Standard & Poor's Compustat data base includes information on tangible and intangible assets for 5,264 publicly traded companies for 1992. We also identified 163 acquisitions that were consummated in 1990, 1991, or 1992 using the Securities Data Corporation data base where we could find corresponding balance sheet data in Compustat.

We divided these companies into two groups:

1. "Presumptively Competitive Firms"—Companies presumed to be in competitive markets because the Herfindahl-Hirshman (HHI) index of seller concentration for companies in that particular SIC code was less than or equal to 1,800; and

2. "Other Firms"—Companies that may possess some market power because the HHI index in their markets exceeded 1,800.[3]

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[1]See NPRM at 20-23.
[2]See NPRM at 22.
[3]The Herfindahl-Hirshman index of seller concentration is a widely used indicia of market power in antitrust and regulatory proceedings. It is calculated by summing the squared market shares of the firms included in the market.

B. Findings

The following summarizes the results of our review of the above data.

1. Are intangible assets commonly observed in competitive markets?

   a. Half of publicly traded companies report intangible assets.

      Of the 5,264 Compustat companies examined, half (i.e., 2,635) reported non-zero intangible asset balances. Compustat classifies balance sheet items as intangibles if they relate to one or more of twenty items, including goodwill, customer lists, franchise and franchise fees, and excess acquisition costs (i.e., "Excess of cost or premium of acquisition").[4] Thus, these specific items, which the FCC proposes to automatically exclude from rate base, are included as intangibles in the data shown presently. Among those items specifically excluded from Compustat's classification of intangibles are "Preopening expenses" and "Start-up costs." Thus, if these items were included in Compustat's classification of intangible assets, the incidence of intangible assets observed would likely have been even higher than 50% of companies.

It can vary between zero (extremely low concentration of sales among firms included in the market) and 10,000 (100% squared, or pure monopoly.) It is widely believed that firms in unconcentrated markets (i.e., where the HHI is low) do not have market power. Firms in concentrated markets (i.e., markets where the HHI is high) may, but do not necessarily, have market power.

An HHI of 1,800 was chosen for dividing firms in Presumptively Competitive markets from firms in Other markets because this threshold value of the HHI is a conservative estimate of the value used by the Department of Justice, the Federal Trade Commission, and regulatory agencies including the Federal Energy Regulatory Commission and the Department of Transportation in evaluating market power issues. (The Department of Justice Merger Guidelines state that markets where the HHI is between 1,000 and 1,800 may have market power issues, but in practice, no mergers are challenged and few merger investigations are conducted in markets where the HHI is below 1,800.) For a discussion of the HHI and its use in antitrust and regulatory proceedings, see the Fall 1987 issue of the Journal of Economic Perspectives.

Purely for computational practicality, we defined markets as national SIC markets. While this was generally reasonable, in some cases, this was clearly not correct. One SIC code is for newspapers, which is a local market. Although the national SIC code was less than 1,800, we moved firms in this SIC code to the above 1,800 HHI category. We also moved firms in the SIC code for radio broadcasting from the above 1,800 category to the below 1,800 category. Radio markets are also local, and a study by the National Association of Broadcasters of HHIs in local radio markets confirms that they are unconcentrated. See National Association of Broadcasters, "An Updated Examination of Market Concentration In Radio Markets," June 1987.

We also conducted our review of the Compustat and Securities Data Corp. data using an HHI threshold of 5,000 rather than 1,800. Our conclusions regarding the frequency and significance of intangible assets and acquisition premiums in competitive markets did not change.

[4]Other items included by Compustat as intangibles are: blueprints and building designs; copyrights; covenants not to compete; design costs; easements; engineering drawings; import quotas; leases and other acquisition costs when company is a lessee; licenses; operating rights; organizational expense; patents; trademarks and tradenames; and transportation companies' route acquisition costs. Other items specifically excluded from Compustat's classification of intangibles are: contracts; deferred charges; deferred financing costs; film development costs; goodwill on unconsolidated subsidiaries; intangibles included in property, plant and equipment by the company; prepaid expenses; software or software costs; unamortized debt discount or expense; and unamortized research and development expense.

b. Competitive firms report intangible assets nearly as often as firms that may possess market power.

For Presumptively Competitive Firms (about half of the 5,264), 44% reported non-zero intangible balances. For Other Firms, 56% reported non-zero intangible balances. Thus, firms in competitive markets report intangible asset balances nearly as often as firms that may possess some market power.

c. Intangible assets are reported in a wide variety of industries.

Non-zero intangible asset balances were reported by firms in a very wide variety of SIC codes. For example, for the Presumptively Competitive Firms, non-zero intangible balances were reported in SIC codes for eating places, variety stores, investment advice, radio broadcasting, motor vehicle parts, crude petroleum and natural gas, and 77 other four-digit SIC codes. For Other Firms, non-zero intangible balances were reported in SIC codes for communication equipment, dental equipment and supplies, grain mill products, newspaper publishing, switchgear and switchboard apparatus, and 288 other four-digit SIC codes.

d. The significance of intangible assets varies widely for both competitive firms and for firms that may possess market power.

The range of percent of intangible assets to total assets reported was very wide—zero to 98%—for the 5,264 Compustat companies. The range was wide for both Presumptively Competitive and Other Firms. For the Presumptively Competitive Firms, the range was zero to 82% of total assets. For Other Firms, the range was zero to 98% of total assets.

Most SIC codes in both HHI categories displayed a wide variation in the significance of intangibles—firms with intangible to total asset ratios of 2% or less often share the same SIC code with firms whose intangible to total asset ratios exceed 60%.

e. Typically, intangible assets are not much higher in markets where firms may have market power.

The mean value of the ratio of intangible to total assets for Presumptively Competitive Firms reporting non-zero intangible balances was approximately 11%. The comparable mean for the Other Firms was approximately 14%. Again, the competitive firms did not appear to differ very much from the firms that may possess some market power.

f. Intangible assets as a percentage of total assets for radio broadcasting, a Presumptively Competitive SIC code, were particularly high and higher than for cable television.

Firms in the Radio Broadcasting SIC all reported high intangible asset balances relative to total assets. The range was 33% to 78%, with a mean value of 56%. This was substantially higher than these percentages for firms in the Cable and Other Pay TV Services SIC. For Cable TV firms, the range was zero to 77%, with a mean ratio of intangible to total assets of only 29%.

The high ratio of intangible to total assets for radio broadcasters is particularly interesting, since a radio broadcaster's business need to make investments to establish a market position (i.e., a license and listeners) is analogous to a cable operator's need to make investments to obtain a market position (i.e., a cable franchise and subscribers). Both must make investments to obtain these essential intangible assets. Given that radio markets are both competitive and unprofitable according to NAB data,[5] it should at least be clear that the presence of intangible assets on cable company balance sheets does not automatically relate to expected monopoly profits.

2. Do companies making acquisitions frequently pay premiums for reasons unrelated to market power?

a. Premiums were paid in half the acquisitions examined.

We examined acquisition price and asset balance data for acquisitions of whole companies that were consummated in 1990, 1991 or 1992. Of the 163 acquisitions examined, reported acquisition prices exceeded the book value of tangible assets in half (i.e., 82) the cases.

b. Acquisition premiums were as common in competitive markets as in markets where firms may possess market power.

For Presumptively Competitive Firms that were acquired (76, or 47% of the 163 firms acquired), 47% were acquired for premiums (i.e., acquisition prices exceeded the book value of their tangible assets). For Other Firms that were acquired (87, or 53% of the 163), 53% were acquired for premiums. Thus, acquisition prices exceeded book value in competitive markets nearly as often as in markets where firms may possess some market power.

[5]According to NAB news releases, 58.6% of all radio stations lost money in 1991. See National Association of Broadcasters News Release 50/92, "1991 Was Tough Year Financially For Radio Stations, NAB Financial Report Finds."

c. Acquisitions premiums were paid in a wide variety of industries.

Acquisition prices in excess of book assets were paid for firms in a wide variety of SIC codes. For example, premiums were paid for acquired Presumptively Competitive Firms in SIC codes for eating places, investment advice, crude petroleum and natural gas, electronic computers and 37 other four-digit SIC codes. For acquisitions of Other Firms, premiums were paid for firms classified in SIC codes for ball and roller bearings, refuse systems, switchgear and switchboard apparatus, industrial and commercial fans and blowers and 66 other four-digit SIC codes.

d. Typically, acquisition premiums paid for firms in competitive markets were not much higher than premiums paid for firms in markets where firms may have market power.

The mean value of the ratio of acquisition price to tangible assets for Presumptively Competitive Firms was approximately 1.5 (meaning acquirers typically paid a 50% premium over tangible book asset value). The comparable mean for the Other Firms was approximately 1.8, but a t-test of the difference in these values showed the difference was not statistically significant even at the 33% confidence level.[6] The average premium paid for competitive firms thus did not appear to differ very much from premiums paid for firms that may possess some market power.

e. Acquisition premiums paid for firms in competitive markets were sometimes very high, and at least as high or higher than premiums paid for cable television assets.

Two cable television acquisitions were identified from the Securities Data Corp. and Compustat data: United Artists Entertainment, where the ratio of acquisition price to tangible book assets was equal to 1.05, and American TV & Communication, where the ratio was equal to 6.43. Although the latter was relatively high among the 82 total cases where acquisition premiums were observed, it was not the highest premium paid, and there were six other acquisitions where premiums of this magnitude were observed. Specifically, three acquisitions of Presumptively Competitive Firms and three acquisitions of Other Firms involved acquisition price to tangible asset ratios in excess of 6.

[6]This test implies that if these 163 acquisitions are representative of all acquisitions made, the difference in the observed mean (i.e., .28, or 1.78 minus 1.5) was probably the result of sampling error (i.e., chance) rather than a true difference in the premium paid.

Premiums paid for the Presumptively Competitive Firms included the following:

SIC Code	Acquired Company	Acquisition Price To Tangible Asset Ratio
Prepackaged Software	Samna Corporation	7.27
Computer Integrated Systems Design	Knowledge Data Systems	6.13
Electromedical Apparatus	Visx Inc.	6.16

Premiums paid for the Other Firms included the following:

SIC Code	Acquired Company	Acquisition Price To Tangible Asset Ratio
Advertising	Pop Radio Corp.	9.62
Metal Mining	Continental Gold Corp.	9.58
Miscellaneous Publishing	Entertainment Publishing	10.73

C. No reliable method exists for estimating the proportion of "excess acquisition cost" that is attributable to expectations of monopoly profits.

The similarities between the competitive and other firms with respect to both the significance of intangible assets and the acquisition premiums paid for tangible assets underscores the impossibility of distinguishing "good" intangible assets from "bad" intangible assets or premiums paid. Indeed, antitrust enforcers do not even attempt to use estimates of "excess profits" as proof that a company possesses market power because such attempts would be futile.[7] The Group believes that this inability to distinguish monopoly from healthy accounting balances implies that all intangible assets should be presumed legitimate costs of business development.

[7]This was not always so. For over a decade, the Department of Justice tried, unsuccessfully, to show that IBM possessed market power because its profits were allegedly excessive. In a well-respected article, Franklin Fisher and John McGowan demonstrated forcefully that it is impossible to use accounting data to distinguish firms with normal profits from firms with excess profits. See Fisher and McGowan, "On The Misuse of Accounting Rates of Return to Infer Monopoly Profits," American Economic Review, March 1983. After the government failed in the IBM case, antitrust enforcers abandoned "excess profits" as an indicia of market power.

One of the most important arguments developed by Fisher and McGowan relates to the relationship between return on investment and the timing of positive returns on investment. Investments with low or negative returns in early years and high returns in later years may have an overall return that is normal. Further, one cannot determine the overall rate of return from accounting data. Although Fisher and McGowan are perhaps best known for this contribution, this has been a well-known principle in public utility regulation for some time. See Ezra Solomon, "Alternative Rate of Return Concepts and Their Implications for Utility Regulation," Bell Journal of Economics and Management Science, Spring 1970.

III. The COS rules should recognize and compensate for start-up investments made in the form of accumulated losses incurred prior to the effective date of regulations, including a return thereon.

In its NPRM, the Commission correctly described the issue of "accumulated losses" as follows:

> We note that large financial losses are common across the industry, and that write-offs of various organizational and development costs, and accelerated depreciation practices, appear to be at least partly responsible for the accumulation of those losses. It may be reasonable to view such accumulated losses as capital invested with an expectation of recovery over future periods as the industry reaches maturity. We seek comment on the appropriate treatment of accumulated losses. (paragraph 39, footnote 44)

As explained in the analysis that follows, we believe the Commission should, as a transitional measure, include amortization of, and return on, accumulated losses for cost-of-service studies used to justify regulated rates at the initial date of regulation. In response to the Commission's specific questions on accumulated losses, we conclude based on our analysis that

- recovery of accumulated losses is necessary to maintain the financial viability of the Group's members;

- accumulated losses should be amortized over a reasonable period, such as the remaining life of the franchise or a period consistent with an operator's ability to recover the amount of the amortization in rates;

- a return should be allowed on the amount of accumulated losses represented by unrecovered costs of depreciation, franchise rights, customer lists, and organizational and development efforts; and

- the amount of the past losses to be recovered should be reduced by an estimate of the tax benefits received, but such reduction should only be made for entities that are allowed to recover an allowance for income taxes under the Commission's cost-of-service rules.

We propose to value the accumulated losses at book value according to past accounting under GAAP. The underlying assumption of this analysis is that the Commission will adopt a "book cost" approach using GAAP books to value rate base. That is, the cable operators will be allowed to use book values of property, plant and equipment, rather than original cost or some other valuation method such as market value or replacement cost. (As the Group already explained in comments on August 25, 1993 in this proceeding, original cost is not available in many cases and for many reasons it should not be used by the Commission.) If, however, the Commission adopts another valuation approach, such as market values or replacement costs, then the use of GAAP books for valuing accumulated losses would have to be re-evaluated.

A. Recovery of accumulated losses is necessary to maintain the financial viability of the Group's members.

1. Prior to rate regulation, Group members accumulated significant financial losses which they fully expected to recover in the future. They continued to rebuild systems and invest heavily in system expansion with the expectation that their investments would earn a reasonable return.

   Ernst & Young received financial and operations data on nine systems served by Group members. The systems were acquired by Group members over the past several years. All of the nine systems had accumulated losses at December 31, 1992. Table 1 lists the system names, ownership affiliation, acquisition date, number of subscribers, 1992 revenues, and the accumulated loss at December 31, 1992. Based on our experience with many cable systems, we believe the financial losses experienced by the nine systems are typical of many operators in the cable industry. Indeed, every member of the Group has systems with significant accumulated losses. (For additional support of this statement, see comments of Group members Prime Cable Corp. and Cablevision Industries, Inc. submitted August 25, 1993 in this proceeding.)

TABLE 1

Medium-Sized Operators Group
Cost-of-Service Study

Summary of Accumulated Loss

System	MSO	Acquisition Date	Current Subscribers	1992 Revenues ($000s)	Accumulated (Loss) Since Acquisition Date to 12/31/92 ($000s)
Astoria, Ore. & Wash.	Falcon	8/1/90	15,864	$4,724	($8,288)
Las Vegas, Nev.	Prime	6/27/86	156,907	$65,831	($91,692)
Prince William Co., Va.	Columbia	5/1/85	45,020	$18,088	($21,501)
Rohnert Park, Calif.	Multivision	12/23/86	47,015	$16,836	($20,174)
San Angelo, Tex.	Marcus	5/1/92	30,795	$7,441	($5,394)
South Bay[1]	InterMedia	1/16/90	64,221	$24,126	($91,096)
Syracuse, N.Y.	Adelphia	12/31/91	39,937	$17,278	($2,678)
Tucson, Az.	InterMedia	9/11/90	76,357	$29,913	($89,603)
Wisconsin[2]	Marcus	8/1/90	85,749	$28,867	($31,735)

[1]Comprised of Santa Clara, Milpitas, Los Gatos, Newark, Saratoga, and Mountain View headends in California.

[2]Comprised of Ashland, Ladysmith, Rice Lake, Tomah, Antigo, Burlington, Menomonie, Two Rivers, Waunakee, and Wautoma Districts.

Table 2 indicates the systems which have been rebuilt or significantly upgraded since the date of acquisition by a Group member, the year the rebuild was completed, and the approximate capital costs. In addition, for each system, including those that have not yet been rebuilt, Table 3 lists the approximate amount of capital investment made in each system since the date of acquisition. These tables illustrate the substantial amount of investment made in these systems to improve the scope and quality of the service, in spite of the large financial losses incurred in the short run.

The cable operators invested in these systems with the expectation of earning a return over the life of the investment commensurate with the risk. This expectation of a reasonable return was developed based on projections of customer growth, cable penetration, prices for all services, introduction of new programming and other services, operating efficiencies, new capital investment, etc. The cable operators certainly expected to recover their initial investment, which included any losses they would accumulate in early years.

TABLE 2

Medium-Sized Operators Group
Cost-of-Service Study

Summary of Significant Rebuilds and Upgrades Since Acquisition Date

System	Location	Date of Completion	Type	Total Cap Expenditure ($000s)	Increase in Channel Capacity	Increase in Channels Activated	Benefits
Astoria	Astoria, Ore.	Dec. 1992	Full Rebuild	$4,000	42	19	Improved reliability/technical quality. Significant decrease in service calls. Increase in customer satisfaction.
Astoria	Astoria, Wa.	Dec. 1994	Full Rebuild	$3,500	42	19	Same as above.
Las Vegas	Las Vegas	July 1988	Electronic	$540	17	17	Increase in channel capacity and subscriber viewing selections.
Las Vegas	Las Vegas	Dec. 1992	Electronic	$25	N/A	N/A	Installation of 14 MTS stereo encoders improved customer satisfaction.
Las Vegas	Las Vegas	Aug. 1993	Electronic	$10	N/A	N/A	Installation of Audio Rider reduced audio level variations and increased customer satisfaction.
Las Vegas	Las Vegas	Dec. 1993	Electronic	$3,885	8	8	Increased channel capacity. Capacity to introduce new digitally compressed programming services.
Las Vegas	Las Vegas	Dec. 19 93	Electronic	$521	N/A	N/A	Reduced CATV system outages from power outages and improved customer satisfaction.
Prince William County	Dumfries/ Quantico	1987	Electronic	$200	7	N/A	Expanded channel capacity and improved signal quality and customer satisfaction.
Prince William County	Virginia	1995	Rebuild	$15,500	38	N/A	Will standardize channel capacity and system electronics.
Rohnert Park	Rohnert Park	1993	Fiber Deployment	$206	19	N/A	Increase in channel capacity, improved signal quality.
Rohnert Park	Rohnert Park	1995	N/A	$2,085	19	N/A	Increase in channel capacity, improved signal quality.
Rohnert Park	Rohnert Park	1995	Headend Upgrade	$367	19	N/A	Increase in channel capacity, improved signal quality.
Rohnert Park	Calistoga	1997	Fiber Deployment	$260	19	N/A	Increase in channel capacity, improved signal quality.
Rohnert Park	Calistoga	1998	N/A	$704	19	N/A	Increase in channel capacity, improved signal quality.
San Angelo	Texas	Dec. 1992	Fiber and Electronic	$2,406	24	13	System reliability improved dramatically. Basic service expanded 9 satellite services.
South Bay	Milpitas, Ca.	July 1993	Full Rebuild	$3,410	47	27	More channels, wider variety. Improved picture quality. More customer options.
South Bay	Los Gatos, Ca.	Nov. 1993	Full Rebuild	$3,397	45	25	More channels, wider variety. Improved picture quality. More customer options.
Syracuse	Syracuse	N/A	Rebuild	$5,750	40	N/A	Will offer more services to subscribers.

TABLE 2

Summary of Significant Rebuilds and Upgrades Since Acquisition Date – *continued*

System	Location	Date of Completion	Type	Total Cap Expenditure ($000s)	Increase in Channel Capacity	Increase in Channels Activated	Benefits
Tucson	Tucson, Az.	Nov. 1991	Headend Upgrade	$97	N/A	N/A	Enabled subscribers to receive stereo broadcasts. Increased customer satisfaction and stability.
Tucson	Tucson, Az.	Dec. 1991	Rebuild	$426	N/A	N/A	Cable re-routing to improve service to subscribers.
Tucson	Tucson, Az.	Dec. 1991	New Build	$578	N/A	N/A	Additional plant added to enable new homes to be connected.
Tucson	Tucson, Az.	Aug. 1992	Upgrades	$541	N/A	N/A	Enabled subscribers to use cable ready sets without need for converter.
Tucson	Tucson, Az.	Dec. 1992	New Build	$398	N/A	N/A	Additional plant added to enable new homes to be connected.
Tucson	Tucson, Az.	Dec. 1992	Rebuild	$350	N/A	N/A	Cable re-routing to improve service to subscribers.
Tuscon	Tucson, Az.	Dec. 1992	Electronic	$42	N/A	N/A	Improved picture quality.
Tuscon	Tucson, Az.	Jan. 1993	Electronic	$74	N/A	N/A	Increased stability of the signal.
Tucson	Tucson, Az.	Apr. 1993	Fiber Rebuild	$777	N/A	N/A	Increased stability and reliability of system and improved picture quality.
Tucson	Tucson, Az.	Apr. 1993	Electronic	$33	N/A	N/A	To meet 2-hour subscriber windows for service calls and installation requests.
Tucson	Tucson, Az.	July 1993	New Build	$178	N/A	N/A	Additional plant added to enable new homes to be connected.
Tucson	Tucson, Az.	July 1993	Rebuild	$165	N/A	N/A	Improved service to subscribers.
Tucson	Tucson, Az.	Aug. 1993	Electronics	$12	N/A	N/A	Increased reliability of phones and computers during power outages.
Tucson	Tucson, Az.	Dec. 1993	Electronics	$534	N/A	N/A	To enable subscriber to use a cable ready set without having to pay for an addressable converter.
Tucson	Tucson, Az.	June 1994	Fiber Rebuild	$266	N/A	N/A	Increased stability and reliability of system and improved picture quality.
Tucson	Tucson, Az.	Dec. 1994	Rebuild	$200	N/A	N/A	Improved service to subscribers.
Tucson	Tucson, Az.	Dec. 1994	New Build	$250	N/A	N/A	Additional plant added to enable new homes to be connected.
Wisconsin	Rice Lake	Mar. 1993	Headend Consolidation	$290	N/A	12	Outage reduction, increased services offered to customers, enhanced system quality, and customer service.
Wisconsin	Menomonie	Aug. 1993	Full Rebuild	$825	25	1	Improved system reliability and signal quality.
Wisconsin	Black River Falls	Dec. 1995	Full Rebuild	$325	46	N/A	To increase reliability and capacity.
Wisconsin	Tomah	Jan. 1996	Full Rebuild	$650	43	N/A	To increase reliability and capacity.
Wisconsin	Ashland	June 1996	Full Rebuild	$490	44	N/A	To increase reliability and capacity.

TABLE 3

Medium-Sized Operators Group
Cost-of-Service Study

Summary of Capital Expenditures Since Date of Acquisition

System	MSO	Acquisition Date	Number of Subscribers as of 12/31/92	Capital Expenditures Since Acquisition Date to 12/31/92 ($000s)
Astoria	Falcon	8/1/90	15,690	$10,728
Las Vegas	Prime	6/27/86	188,510	$158,156
Prince William Co.	Columbia	5/1/85	44,456	$39,334
Rohnert Park	Multivision	12/23/86	47,486	$15,680
San Angelo	Marcus	5/1/92	30,772	$3,068
South Bay	InterMedia	1/16/90	64,623	$30,011
Syracuse	Adelphia	12/31/91	41,088	$2,555
Tucson	InterMedia	9/11/90	85,847	$80,328
Wisconsin	Marcus	8/1/90	84,578	$2,792
Total				$342,651

2. Unlike owners of a typical public utility, the Group members did not expect a constant annual return on their investment. Cable operators expected losses in early years, followed by positive returns in later years.

   Expectations included financial losses in the initial years, as costs were incurred in advance of expected revenue growth. In fact, as in most entrepreneurial ventures, financial losses in early years are considered normal, as long as one can expect future revenue growth and cost-efficiencies sufficient to earn a reasonable return over the life of the investment.

   The existence of such expectations can be confirmed by examining the trend of cable financial and operating performance for a representative sample of systems. Ideally one would examine the trends of system and subscriber growth, and revenues and costs, over the time since a system's inception, in order to confirm that the expected trend is indeed a common one in the industry. One would expect the data to demonstrate the pattern of loss accumulation in early years, followed by profit in later years, consistent with investor expectations in this industry.

   However, because all nine systems were acquired by Group members within the past several years, records are not available that would allow us to track since system inception the trends of subscriber growth, household penetration, and accumulation of financial accounting losses. At the dates of acquisition of a cable system's assets,

each Group member in effect acquired the seller's accumulated losses (and the value that was created by expenditures that produced those losses). When the acquisition value was allocated by the purchaser to the tangible and intangible assets of the succeeding business entity, the losses accumulated by the seller were, in effect, transformed into assets on the accounting books of the purchaser. Acquisition values reflected the purchasers' expectations that the value of these acquired assets would be recovered (including the value created by expenditures that produced accumulated losses) and that those assets would produce positive profits in the future.

Although the pre-acquisition records of the build-up of losses are not available, there is an example on the record in this proceeding of a system that has operated without acquisitions since inception, and can be used to profile the process of financial loss accumulation. In its comments of August 25, 1993 in this proceeding, Media General Cable of Fairfax, Inc. provided nine years of financial results for its cable system, which displayed the pattern of early financial losses described above (Media General Comments, Attachment 1). Figure 1 is a graphical representation of the historical trend of annual net income using the figures from Attachment 1. Media General states that it fully expected to recover its investment and earn a reasonable return over the life of the investment, and that it

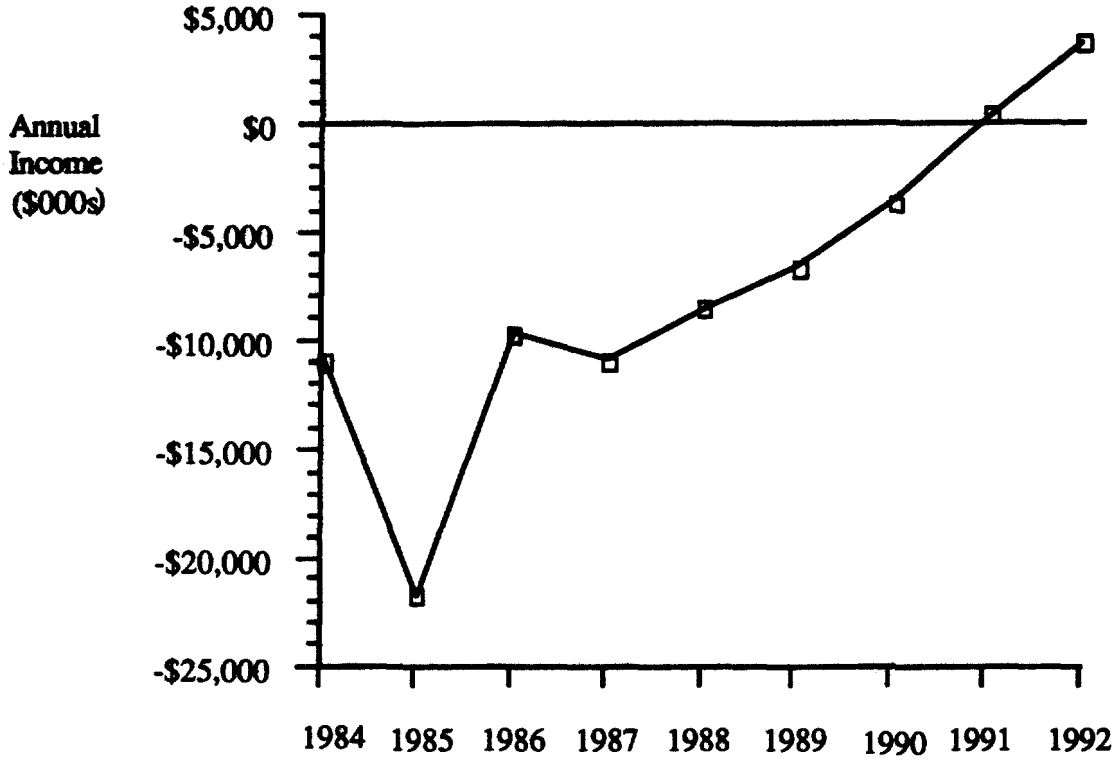
> made judgments about the proper slope of rate increases that likely would have been very different had it known that rate regulation, much less rate regulation that might challenge its capacity to recoup past operating losses, would soon be upon it. (Media General Comments, p. 9)

A similar theme is noted in the comments of Group member Cablevision Industries et al. Cablevision states that cable systems with accumulated losses

> generally incurred them in the initial stages of providing service . . . in an unregulated environment with the expectation that, if they were successful entrepreneurs and their businesses grew, they would have an opportunity to recover them in the future. Disallowing accumulated losses at the onset of rate regulation would deny operators any opportunity to recover them and would be confiscatory. (Joint Comments, Cablevision Industries et al., p. 24-25)

FIGURE 1

Media General Cable of Fairfax, Inc.
Annual Net Income



Source: Attachment 1 of Comments of Media General Cable of Fairfax, Inc., August 25, 1993, in MM Docket No. 93-215.

Table 4 displays the pattern of the build-out of Media General's system (the trend in number of homes passed), the growth of subscribers, and the increase in penetration over the same period as the financial data. Over the period shown, the cable operator made judgments on the trend of rates that would best recover its investment, and earn a reasonable return, over the life of the investment. The result was a significant increase in subscribers and penetration, which, however, lagged the build-out of the system and contributed (particularly in early years) to the accumulated losses. As subscriber penetration reached two-thirds of homes passed in 1991, Media General saw its first positive net income.

TABLE 4

Medium-Sized Operators Group
Cost-of-Service Study

Media General Cable of Fairfax, Inc.

	Homes Passed	Subscribers	Penetration
1984	68,668	38,397	55.92%
1985	146,762	90,012	61.33%
1986	211,259	131,166	62.09%
1987	235,661	151,156	64.14%
1988	251,892	161,515	64.12%
1989	265,963	173,930	65.40%
1990	280,267	184,721	65.91%
1991	292,028	195,290	66.87%
1992	298,785	201,789	67.54%

Source: Company records.

We can see a similar pattern in the data for three of the nine systems for which we have data going back several years. Table 5 displays subscribers, homes passed, and penetration for the Las Vegas, Prince William County, Rohnert Park, South Bay, and Tucson systems. (For the Las Vegas, Prince William County, and Rohnert Park systems, the data are given for years since the acquisition by the current owners. For the South Bay system, acquired in January 1990, the data were available back to 1985. For the Tucson system, acquired in 1990, data were available back to 1983. All data are as of the end of each year.) In each case, the number of homes passed, subscribers, and penetration have increased significantly. However, the systems have not yet reached the point of positive net income as of 1992, the last full calendar year of financial information.

TABLE 5

Medium-Sized Operators Group
Cost-of-Service Study
Summary of Subscribers, Homes Passed, and Penetration

Las Vegas

Year	# of Subs	# of Homes Passed	Penetration
1992	188,510	319,871	58.9%
1991	171,102	298,224	57.4%
1990	139,416	281,274	49.6%
1989	122,057	248,642	49.1%
1998	101,723	228,817	44.5%
1987	81,204	209,381	38.8%
1986	73,002	198,259	36.8%
1985	N/A	N/A	N/A
1984	N/A	N/A	N/A
1983	N/A	N/A	N/A

Prince William County

Year	# of Subs	# of Homes Passed	Penetration
1992	44,456	60,800	73.1%
1991	41,578	59,732	69.6%
1990	38,780	56,750	68.3%
1989	36,065	54,457	66.2%
1998	33,505	50,097	66.9%
1987	30,634	44,401	69.0%
1986	9,774	13,143	74.4%
1985	N/A	N/A	N/A
1984	N/A	N/A	N/A
1983	N/A	N/A	N/A

Rohnert Park

Year	# of Subs	# of Homes Passed	Penetration
1992	47,486	63,462	74.8%
1991	46,096	62,054	74.3%
1990	43,205	57,222	75.5%
1989	41,126	56,075	73.3%
1998	39,777	54,569	72.9%
1987	37,800	52,600	71.9%
1986	35,009	N/A	N/A
1985	N/A	N/A	N/A
1984	N/A	N/A	N/A
1983	N/A	N/A	N/A

South Bay

Year	# of Subs	# of Homes Passed	Penetration
1992	64,623	116,415	55.5%
1991	64,753	115,340	56.1%
1990	62,475	114,275	54.7%
1989	60,591	111,361	54.4%
1998	57,341	108,446	52.9%
1987	53,320	105,950	50.3%
1986	48,805	105,106	46.4%
1985	35,889	77,669	46.2%
1984	N/A	N/A	N/A
1983	N/A	N/A	N/A

Tucson

Year	# of Subs	# of Homes Passed	Penetration
1992	85,847	195,207	44.0%
1991	88,429	190,277	46.5%
1990	87,987	188,320	46.7%
1989	83,072	184,882	44.9%
1998	76,970	178,922	43.0%
1987	62,872	178,860	35.2%
1986	58,701	173,250	33.9%
1985	51,813	168,000	30.8%
1984	46,482	160,000	29.1%
1983	28,603	158,650	18.0%

3. Rate regulation has caught each system in a state of development where past losses have not yet been recovered, and under the proposed cost-of-service rules, will never be recovered, thereby confiscating investments made prior to regulation.

   In all of this information, we observe a "snapshot" in time of systems that are in various stages of development. Each operator is at a different point in its attempt to recover investments made in arms-length transactions prior to regulation. The introduction of rate regulation was not part of the original expectations of these operators, and certainly not traditional cost-of-service regulation which (if it were to exclude intangibles and accumulated losses from cost recovery) would deny operators the opportunity to recover their investment. If cost-based prices exclude amounts designed to recover, over time, intangibles and accumulated losses, then these past investments are effectively confiscated. The magnitudes of these past investments are such that recovery only from unregulated services is not feasible.

4. Recovery of intangible assets and accumulated losses is essential for the financial viability of the surveyed (and many other) cable systems.

   Ernst & Young has done illustrative cost-of-service analyses for eight of the nine systems according to the cost-of-service rules in Paragraph 76.924 of the Commission's *Rules and Regulations* for the annual 1992 period. (We use the term "illustrative" because detailed cost-of-service rules are not yet finalized, and we did not analyze each system's costs to the level of detail typically required for a full cost-of-service filing. Also, the required data were not available for one of the systems.) In these analyses, we have excluded intangibles and accumulated losses, as well as allowance for income taxes for partnerships and Subchapter S corporations.

   In Table 6 we compare for each system revenues under cost-of-service regulation to costs. As shown in Step 1, revenues equal the sum of the regulated revenue requirement (for basic tier, programming tier and the equipment basket) and the actual unregulated revenue. From revenues we subtract the annual cash expenses (operating expenses and interest costs) plus depreciation on tangible property, plant and equipment in Step 2. The resulting difference, shown in Step 3, is an illustrative amount of earnings after cash expenses and depreciation to cover amortization of intangible assets, recovery of past losses, and owners' return.

   As can be seen in Table 6, under traditional cost-of-service regulation only 6 of the 8 systems would be able to recover their annual cash costs. Only 2 systems would recover all of their depreciation expense (Step 3 "Difference" is positive in Table 6), and only one would recover amortization of existing intangible assets (compare "Difference" to "1992 Amortization of Existing Intangible Assets" in Table 6). None of the systems would be able to recover their accumulated losses over a reasonable period of time. Put another way, if regulated services are just recovering their "costs" (defined according to traditional public utility regulations) the existing unregulated revenue is insufficient to recover the intangible costs and accumulated losses. A traditional cost-of-service approach

TABLE 6

Medium-Sized Operators Group
Cost-of-Service Study

Comparison of Pro Forma Cost of Service Revenue v. 1992 Expenses
($000s)

	Astoria	Las Vegas	Prince William Co.	Rohnert Park	San Angelo	South Bay	Tucson	Wisconsin
STEP 1								
Basic Tier Rev Requirement	$1,458	$11,846	$11,262	$4,137	$1,020	$4,606	$11,928	$6,262
Programming Tier Revenue Requirement	$1,868	$25,095	$0	$5,657	$2,777	$7,656	$14,300	$10,944
Equipment and Installation Revenue Requirement	$376	$7,880	$1,209	$1,931	$482	$1,728	$3,357	$167
1992 Unregulated Revenue	$1,210	$20,043	$6,256	$3,397	$1,574	$5,946	$7,349	$5,137
Total Pro Forma Revenue Under Cost-of-Service for Regulated Service	$4,911	$64,864	$18,727	$15,122	$5,854	$19,936	$36,934	$22,510
STEP 2								
Operating Expense (excluding depreciation and amortization)	$1,653	$33,304	$8,906	$8,593	$3,307	$11,358	$16,970	$11,910
Depreciation Expense	$1,958	$13,256	$3,549	$3,190	$719	$3,824	$12,978	$5,623
Interest Expense	$2,785	$8,225	$3,888	$3,859	$1,559	$20,381	$20,190	$8,764
Other Cash Expenses	$235	$5,207	$729	$867	$413	$1,253	$1,328	$1,527
Total 1992 Annual Cash Expense and Depreciation (before amortization)	$6,630	$59,992	$17,072	$16,510	$5,997	$36,815	$51,466	$27,825
STEP 3								
Difference	($1,719)	$4,872	$1,655	($1,388)	($144)	($16,879)	($14,532)	($5,315)
1992 Amortization of Existing Intangible Assets	$1,950	$2,114	$3,280	$2,217	$6,893	$17,101	$13,864	$12,676

applied in mid-stream would insure that the operator would never have the opportunity to recover these costs.

Customers will feel the impact of regulations that do not allow operators to recover their costs. Exclusion of accumulated losses and intangibles from cost recovery will significantly reduce investors' incentives to commit capital to this industry for improvements to cable service. If investors believe that FCC regulation can confiscate investments in cable service, they will make no more investments (see letter to the FCC from Bank of America and 17 other banks, dated June 21, 1993, in MM Docket 92-266). The result will be reduced service to customers and reduced competition for the "information highways" of the future.

5. Accumulated losses and intangible assets should be allowed in the cost base for justifying cable rates on the initial date of regulation. A transition is required in the cost-of-service rules that recognizes that operators should have the opportunity to recover investments made prior to rate regulation.

   The Commission's cost-of-service rules should distinguish accumulated losses and intangible assets that were acquired before cost-of-service rules are adopted, from those that are created or acquired after rules are adopted. Both are investments that need to be recovered, but the former were made in arms-length transactions prior to regulation and would be subject to confiscation if now excluded from regulated cost recovery. Bank lenders, bondholders, and other investors are likely to face substantial unanticipated losses if the Commission does not recognize these past investments.

   Because each operator faces somewhat unique circumstances, each operator should be required to justify its own amounts of past losses and intangibles and related amortization. After the initialization of regulated rates, the FCC could rule that future losses and additions to intangible assets are not "external" to the price cap, and that any operator seeking to include these items in justifying subsequent rates would have to make a full cost-of-service showing.

B. Accumulated losses should be amortized over a reasonable period, such as the remaining life of the franchise or a period consistent with an operator's ability to recover the amount of the amortization in rates.

   The Commission should allow cable operators some flexibility in amortizing the amount of accumulated losses that exist on the initial date of regulation. The remaining life of the franchise may be the best choice for some operators. However, this period may be too long for other operators because of competitive factors that make recovery very uncertain beyond, say, 5 to 7 years. In no case should the recovery period be extended to an unreasonably long period, such as 20 years, as this may effectively preclude recovery.

C. A return should be allowed on the amount of accumulated losses represented by unrecovered costs of depreciation, franchise rights, customer lists, and organizational and development efforts.

When losses occur, they must be funded from some source. Initially, the funding may be from the equity holders as their initial capital investment is eroded. Ultimately the losses may have to be funded by additional contributions of capital from owners, lenders or both. As with any investment, the investors who fund the losses expect to be compensated for the investment. In this case, the investors expect that the return will be in some future period after the losses can be reversed. Without such expectations, the investments would not be made.

Thus, investments to fund accumulated losses are no different than any other investment in the cable operation, and are required for the continued operation of the system. The amount of accumulated losses included in the rate base for establishing regulated rates must earn a reasonable return. Otherwise, the investors who funded the losses will be denied a return on their investment. This return on invested capital is just as important as the return of invested capital represented by the amortization of the accumulated losses in the allowable ratemaking expenses.

D. The amount of the past losses to be recovered should be reduced by an estimate of the tax benefits received, but such reduction should only be made for entities that are allowed to recover an allowance for income taxes under the Commission's cost-of-service rules.

Losses may create tax benefits to owners of a cable system, to the extent that the losses can be used to offset taxable gains from other sources in the current tax year, or to the extent that losses create a carry-forward that can be used to reduce tax liabilities in future years. As a general rule, for taxable entities the accumulated loss should be offset by the amount of accumulated tax benefits that were created by the losses. For example, in Attachment 1 of its comments of August 25, 1993 in this proceeding, Media General listed the tax benefits related to its accumulated losses. Its accumulated loss was stated net of tax benefits, which is reasonable for a taxable corporation.

However, the Commission proposes not to allow partnerships, Subchapter S corporations, and sole proprietorships an allowance for income taxes in a cost-of-service calculation. The reason given by the Commission is that such entities are not subject to income taxation. We argue in another section of this paper that such entities should be allowed to include income tax expense in their cost-of-service.

We believe that the Commission's cost-of-service rules should be symmetrical with respect to income taxes and accumulated losses. If a cable operator is allowed to include an income tax allowance in its cost-of-service, then any accumulated losses should be included net of tax benefits. However, if a cable operator is not permitted an income tax allowance, then any accumulated losses should be included without regard to tax benefits that may or may not have accrued to owners. This symmetrical treatment of income taxes in cost-of-service would avoid imposing a further penalty on partnerships and Subchapter S corporations if the Commission decides to deny them an income tax allowance.

IV. GAAP should be used as the basis for justifying historical expense levels and asset values. There is no need for Commission-prescribed depreciation and amortization rates.

Commenting parties in this proceeding have noted that there are several methods for valuing a company's assets, or rate base, for the purpose of calculating an allowed return under rate-base/rate-of-return regulation. Methods range from original cost, to "trended" original cost, to replacement cost and market value. (Members of the Group have demonstrated, however, that information on "original cost" is often not available for their systems.)

If the Commission decides to permit operators to use historical asset values as one option for rate base valuation, we recommend that existing accounting information developed under GAAP be the primary source of the historical asset values. This information is readily available, is audited annually, is relied on by third parties such as lenders, and is readily verifiable by the Commission. Historical asset values are not the only, or necessarily the best, method of valuing assets for ratemaking purposes, but if historical values are used then existing information based on GAAP should be considered acceptable.

The Commission should not prescribe a uniform system of accounts for this industry. The cost of implementation would be significant, and the time required to implement a uniform accounting system could delay a final determination on COS rules for several years. The industry and its customers can not afford such cost, delay and uncertainty.

The balance of this section will discuss the issue of depreciation rates and expense in cable rate regulation.

A. Prescription of Depreciation Rates

In its Notice of Proposed Rulemaking in MM Docket No. 93-215, on cost-of-service regulation, the Commission tentatively concludes that it should prescribe depreciation rates in the context of developing cost rate-based rates for regulated cable services (paragraph 27). The Commission's justification for this approach is that depreciation is typically a significant expense item for capital-intensive regulated industries, and excessive depreciation rates and expense could adversely affect subscriber rates. The Commission also notes that current depreciation practices may vary widely within the cable industry, presumably implying that some measure of control for depreciation practices should be introduced. The Commission then addresses a variety of issues related both to the large number of privately held entities in the cable industry and to technical issues like remaining life or other recovery methodologies, classes of depreciable plant, service lives, retirement schedules, and depreciation methods.

Cable depreciation practices have historically been established under circumstances which did not provide any incentive to manipulate these rates. Nevertheless, the FCC's discussion of these issues indicates that the FCC is contemplating applying the same onerous burden of justifying depreciation rates and practices on the cable industry that it currently imposes on the largest telephone companies. In light of the fact that the cable

industry has, since 1984, not been subject to rate regulation and prior to that time was rarely subject to cost-of-service based rate regulation, imposition of the burden of justifying depreciation rates and practices would far outweigh any benefits achieved for consumers.

There are a number of reasons why existing cable company depreciation rates should be presumed reasonable, including the following:

- Based on regulatory market and financial considerations, there is no reason that existing cable depreciation rates would be unreasonable.
- GAAP and existing cable company practices provide adequate ongoing constraints over cable rates.
- The level of effort required to develop and justify depreciation rates for cable companies is unlikely to be cost-effective.
- Existing cable company depreciation rates and practices are not out of line with those in the telephone industry and other similarly situated industries.

The remainder of this section will address each of these items in turn.

B. Cable operators had no regulatory or practical incentive to misstate or manipulate depreciation rates and practices in the past.

Given the lack of incentive that cable operators have had to manipulate their depreciation rates and practices in the past, any cable depreciation rates or practices in effect prior to the effective date of the 1992 Cable Act should be deemed reasonable for cost-of-service showings.

1. Lack of Regulatory Incentive

With very few exceptions, all prior to 1984, cable operators have rarely been subject to traditional cost-of-service regulation. Consequently, in contrast to the telephone companies, cable companies have not had the incentive to structure their accounting to increase current revenue requirements and cash flow or minimize sharing obligations under the Commission's price cap plan. Consequently, as will be described below, cable operators established book depreciation rates and practices which had no direct financial implications. This contrasts sharply with the circumstances facing rate base/rate of return regulated industries where increases in depreciation rates produce nearly dollar-for-dollar gains in revenue.

2. Lack of Practical Incentive

Beyond the lack of regulatory incentives to develop inappropriate depreciation rates, the practical financial and market incentives do not appear to have existed either.

Cable company financial results and valuations are typically reviewed on a cash flow, not accounting income, basis. Because depreciation expense affects accounting income, but not cash flow, unless reported depreciation expense was noticeably outside the range of normal industry practices, cable depreciation practices would likely have little or no effect on stock values, or other relevant external financial measures.

C. Adequate internal and external controls are in place to control future depreciation practices.

1. GAAP constrains depreciation practices.

For publicly reporting cable companies and for virtually all cable companies which have external debt, (GAAP) constraints must be satisfied. As described in the Ernst & Young report "Depreciation Safeguards Under GAAP" submitted as a supplement to the USTA's Reply Comments round in CC Docket No. 92-296, *In the Matter of Simplification of the Depreciation Prescription Process*, GAAP imposes significant constraints on business' depreciation practices. The principal constraints imposed by promulgated GAAP are:

- Total depreciation charged for an asset over its useful live cannot exceed the asset's cost less salvage value. This provision states that no more than total cost of the asset, defined at original cost levels, can be written off through depreciation expense.

- Depreciation expense should distribute asset costs over their useful lives. In other words, lives used for financial purposes should reflect actual operating and economic conditions.

- Depreciation expense should be allocated over these useful lives in a systematic and rational manner. Generally, this provision results in companies using straight line depreciation.

These three constraints, along with the additional GAAP constraint that changes in depreciation methods or lives must be reported to the SEC, and thus, must be made public, provide significant controls over a company's depreciation rates and practices. Violation of these GAAP constraints can result in significant penalties, such as qualified financial opinions, SEC deregistration, and defaults under credit agreements. Reference should be made to the Ernst & Young paper cited above for further amplification of the scope of GAAP constraints over depreciation accounting.

2. In practice, cable depreciation rates are appropriate.

The manner in which cable companies have traditionally set their depreciation rates also mitigates, at least prior to the effective date of the Cable Act, against any manipulation of depreciation rates and practices. Based on a survey conducted by

Ernst & Young (then Ernst & Whinney) in 1986 of cable companies, as well as companies in other regulated and unregulated industries (*Review of Depreciation Policies and Procedures in Selected Industries*, Ernst & Whinney, 1986), a number of features of the cable industry's depreciation rate-setting process were identified which indicated that, in that unregulated era, the cable industry was unlikely to materially misstate its depreciation rates. Like the other unregulated industries surveyed in this study, the practice of setting depreciation rates in the cable industry had the following characteristics:

- Relatively little effort was devoted to establishing depreciation rates because they were not an important component of company financial results and asset lives could be reasonably estimated without extensive effort.

- Generally, unit depreciation, rather than group depreciation (which is used in the telephone industry), was employed.

- Because unit depreciation was used, gains and losses on disposal could be monitored and typically constituted the principal stimulus to evaluate changing depreciation lives.

- Straight line depreciation, similar to that employed in the telephone industry, was used by all cable companies in the survey.

- Depreciation rates were generally established to conform to industry standards, resulting in relatively similar depreciation rates among cable companies (see below).

- Similar to most companies, depreciation rates were rarely changed—generally only when another cable company had been acquired.

These conditions characterizing cable company depreciation rate-setting practices would be unlikely to result in distorted depreciation rates. Rather, consistent with the practices in most unregulated companies, establishing depreciation rates is a relatively uncontroversial exercise which is only adjusted if the results, which rarely occurs, appear quite unreasonable vis-à-vis industry standards or in creating gains or losses on disposal.

3. Special Circumstances

In combination with the GAAP constraints, and the lack of incentives noted earlier, depreciation rates established prior to the 1992 Cable Act should be deemed reasonable absent strong evidence (e.g., rates far outside of normal depreciation ranges) to the contrary. For companies that were never required to prepare public financial reports, their depreciation rates could be compared to those of publicly reported cable financials to estimate their reasonableness. Otherwise, unless a cable

company has recently changed its depreciation rates or practices, pre-1992 Cable Act depreciation rates should be presumed reasonable.

D. Burdens v. Benefits of FCC-Mandated Depreciation Rates

1. Telephone company experience illustrates likely burden.

The development and support of depreciation rates in the regulated telephone industry has traditionally been an extremely burdensome activity, as the Commission recognized in its recent NPRM in CC Docket No. 92-296 to simplify depreciation procedures. Traditionally, telephone common carriers have been required to submit detailed historical depreciation studies, consisting of approximately 600 pages, on a tri-annual basis to support depreciation rate represcriptions.

The validity of this approach in a dynamic and technical market environment has been questioned by both telephone companies and the Commission. If the cost benefit analysis does not work for telephone companies, it is even less appropriate for historically unregulated cable companies. The typical large cable company spends less than a half a man-year on depreciation annually, while RBOCs and other large (and "subject to") telephone companies in total expend $35 to $50 million annually (NPRM, 92-296, footnote 9). (Further, AT&T has estimated that it expends $1.5 million annually on depreciation studies.)

2. Prescribed telephone depreciation rates have not worked well.

Aside from the administrative burdens that would be imposed by regulating cable depreciation practices, there is some evidence that the depreciation rates permitted in the telephone industry have been inadequate to provide for full capital recovery. For example, in 1988, the Commission permitted the telephone companies to amortize a total depreciation reserve deficiency of approximately $13 billion over a five-year period (3 FCC Rcd 984). In so doing the FCC recognized that, even after its implementation of more rapid depreciation (using equal life group and remaining life) in 1980 (83 FCC 2d 267), substantial shortfalls in capital recovery continued to exist. More recent information, submitted by the telephone companies in CC Docket No. 92-296, indicates that regulated depreciation rates continue to be inadequate. For example, Bell Atlantic indicates a current reserve deficiency of $845 million, BellSouth of $1.5 billion, and AT&T of $4 billion.

As has been demonstrated above, given that there appears to be little benefit from regulating cable company depreciation practices adopted prior to rate regulation, the burdens imposed by common carrier type regulation are likely to outweigh these benefits in all except the most egregious situations.